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AUTHOR Wood, Fred; Kleine, Paul F.
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ABSTRACT

This paper reviews staff development research related to rural schools. Only a limited number of studies have described, or evaluated the effects of, particular staff development programs in rural schools, or have assessed the perceived needs of rural faculty and administrators for inservice training. However, rural educators can draw implications from non-rural research on teacher and administrator attitudes about inservice education, specific practices that increase the effectiveness of professional development programs, conceptual models for program design, program content and implementation, and program impact on teacher behaviors and student achievement. An analysis of this research suggests practices that should be included in rural staff development programs: (1) focus on school based improvements in professional practice; (2) involve teachers in goal and content selection; (3) base inservice training on a systematic needs assessment; (4) use guided practice and experiential learning during the training stage; (5) use peer instructors with expertise as inservice leaders; (6) provide follow-upon assistance during the implementation phase; and (7) encourage principal participation in training. The paper points out conceptual ambiguities about rural schools encountered in the literature, enumerates the major flaws in the existing research base, discusses research content and methodology, and suggests the establishment of a National Research Agenda for Rural Education. Contains 100 references. (SV)

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STAFF DEVELOPMENT RESEARCH AND RURAL SCHOOLS: A CRITICAL APPRAISAL

Fred Wood
and
Paul F. Kleine
The University of Oklahoma

U.S. DEPARTMENT OF EDUCATION
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NCREL
NORTH CENTRAL REGIONAL EDUCATIONAL LABORATORY
295 Emroy Avenue
Elmhurst, Illinois 60126
312/941-7677

Overview

This review of research related staff development in rural schools is organized into five major sections. The first provides an overview of the research that has been conducted in the rural schools. This section is followed by an analysis of the general staff development research literature which provides findings which may have implications for educators in rural settings. The third section summarizes the practices from the first two sections that appear to be applicable to rural educators. Part four is a commentary on the existing research which points up a problem of conceptual ambiguity in the area of rural staff development. The final section is a proposed research agenda which offers substantive, methodological and conceptual suggestions for our research colleagues.

SECTION I: STAFF DEVELOPMENT RESEARCH FROM RURAL SETTINGS

While the existing literature on staff development specifically devoted to rural settings is sparse, spotty and scattered, it does exist and it is growing. Without question the field's reach still exceeds its grasp. As an example of the discrepancy between reach and grasp the recent Resource Review developed by the Clearing House on Teacher Education (AACTE, 1987) listed 197 citations on staff development and only four appear to have been conducted in rural settings!

Needs Assessment, the Case for Uniqueness

The theme of rural school uniqueness is played in various keys which include school and district size, lack of resources, difference in mobility patterns, difference in values, difference in teacher training requirements and difference in achievement and vocational pattern. Lundsgaard (1983) argued that three problems made staff development more difficult in rural settings: 1) Lack of full time personnel for staff development, 2) Logistical problems of scheduling, class preparations, etc. and, 3) Perceptual or attitudinal problems (eg. inservice appears costly in a small budget).

Reece (1984) grappled with what appeared to him to be a contradiction between needs and wants of the rural teachers, principals and school board members he surveyed. He argued that there were quite unique needs identified in his sample. For example, 45% of the elementary teachers reported teaching at 2 or more grade levels, 43% of secondary teachers were making 4 or more preparations and 9% were teaching in 3 or more separate disciplines. In spite of what appeared to be unique needs there did not appear to be unique requests for staff development; in fact, 50% of the teachers and principals in Reece's study indicated they did not believe special preparation for teaching in rural schools was necessary. Reece concluded: "There appears to be little indication from these perceptions that there is extensive need for inservice education in rural settings. (p. 9)

The requests for inservice help in Reece's study appeared to be in subject areas, special education, classroom management and curriculum; hardly a unique list of inservice needs! There appeared to be very little attention or expressed need for cultural characteristics of rural children or minority children or dealing with affective domains.

Nelson and Trueblood (1982) made the strongest plea for the uniqueness of rural contexts. They suggested that: "The demands on rural teachers are of a different qualitative and quantitative mode than their counterparts in graduate programs or in non-rural teaching settings." (p. 5)

Hoyt (1981) examined preservice and inservice options for rural educators and concluded: "Education students who will be teachers in rural areas need somewhat different training from other prospective teachers." (p. 3) She argued, without data, that students should be exposed to realities of rural schools which might reduce the rapid turnover of teachers. This argument is interesting in that one could argue alternatively that exposing students to the realities of rural schools might also reduce the likelihood of their willingness to teach in rural schools in the first place. Either argument runs counter to data from other sources which suggest that rural teachers typically have grown up in rural communities; either in the districts or very near the districts in which they are employed.

At times, writers were strongly committed to the notion of rural school uniqueness and yet attempted to build

generalizations which belied that uniqueness. For example, O'Connell and Hagans (1985) wrote: "Summarizing, the Rural Education Advisory Committee noted that staff development in rural settings must be based upon the realization that rural schools are unique in their organization, in the types of students and communities they serve, in the demands they place on other professional staff, in the types of instructional materials they need and in the instructional delivery systems they use." (p. 7) The assumption that rural schools represent a class of schools about which generalizations can be made seems to belie the individual differences inherent in rural schools. The simple contradiction which emerges is that if rural schools are very different from one another then it is quite difficult to draw generalizations about rural schools as a collective whole.

Some attempts to tailor staff development programs to rural settings may result in statements which appear condescending if not discriminatory. Consider the following quotation: "Often suburban workshop leaders, familiar with teachers who operated at stages 2 or 3, found themselves at a loss to give meaningful examples and modeling to rural teachers who needed clear stage 1-oriented directions." (O'Connell and Hagans, 1985, p.9) This statement may have been motivated by a desire to provide a unique match between the training and the skills required; however, personal experience and research data do not make clear that rural teachers are uniquely functioning at Stage-1 in their cognitive development.

Staff Development Research in Rural Settings

The following studies represent the nucleus of what we hope will be a growing number of research investigations in the future. Only a limited number of studies were found which attempted to assess the effects of particular staff development programs in rural schools but there is some evidence that scholars are beginning to extend and test program effectiveness in rural schools.

Ostlund (1986) provided in-service training for 28 physical science teachers and reported positive changes in attitudes toward perceived competencies in teaching science and increased cognitive gains for students after four months but the study suffered a common pair of flaws: 1) Lack of a control group and, 2) lack of adequate description of the training program.

Kilgore et al. (1986) provided a useful case study as they tested the generalizability of empirically derived effective practices from the general staff development literature in a rural school setting. Five schools (two K-4 grade schools, one 5-6 grade school, one Junior High and one Senior High) were provided with training in the following 7 practices which the researchers had gleaned from the literature as having been empirically validated.

1. Use of short and long term planning needs.
2. Joint planning and participation of teachers and administrators in all staff development activities.
3. Maintain close relationships between in-service activities and curriculum development.

4. Focus staff development on specific teaching skills.
5. Develop continuous program planning throughout the school year.
6. Identify local teachers to demonstrate and provide coaching at sessions.
7. Use voluntary participation of faculty and staff.

The case study provided strong support for practices 1 & 2, weak support for practice 3 & 5. Practice 4 yielded ambiguous results and coaching (practice 6) was reported as having consistent but only moderately strong effects. Since all participants were voluntary it was not possible to gather data on this practice.

One study broke new ground and experimentally tested causal links among variables which had been found to be statistically correlated in the research literature. Marzano, et al. (1984) selected a set of established variables and manipulated them in a quasi-experimental design with a very small sample size of 5 experimental and 5 control classrooms. The strength of this study was that the researchers demonstrated that the desired behaviors had, in fact, been taught in their 20 days of in-service which were distributed over a one year time span.

The researchers concluded that achievement appeared to be <u>negatively</u> correlated with newly acquired teaching behaviors but it appeared to these reviewers that they may have been premature in drawing that inference. Out of 9 pre-post comparisons there were 3 favoring the control group which were statistically significant, 3 favoring the experimental group which were not

statistically significant and 3 more which favored the control group but not statistically significantly. Such mixed data drawn from such a limited sample would appear to lead to a more cautious inference of no differences being found.

Additionally, researchers should be advised to examine their measures carefully for what would appear to be unusual occurrences. In this study the Kindergarten class scored at the 76th percentile on the pre-test and dropped to the 38th percentile on the post-test which should raise serious questions about the measure used or about variables other than the type of in-service training!

Other researchers studied personality characteristics of rural teachers and examined relationships with attitudes toward staff development. Trueblood and Flanagan (1984) claimed, without data, that the drive for internal locus of control seems strong in isolated rural school sites and therefore the change agent role is best played by an internal leadership team as opposed to external change agents. Flanagan's (1984) dissertation examined the relationship of locus of control and attitudes toward inservice education among rural teachers and found that secondary males were more internally oriented and also more negative toward inservice education in contrast to elementary teachers who tended to be female, externally oriented and more positively disposed toward inservice education. In her dissertation, Trueblood (1984) found that younger, less

experienced rural educators have more positive attitudes toward inservice training.

Rural Staff Development Programs Described

While the number of research studies which actually tested the effects of programs was limited, there are other studies presented in this section which attempted to describe their practices or to list what appear to be promising alternatives. The value of such studies is obviously limited but they can serve as useful guides for the next step in the research process.

Hoyt (1981) is representative of those writers (eg. Davison, 1981; Baker & Ambrose, 1985) who described programs which were seen as desirable for staff development in rural settings. She listed the following programs as noteworthy: 1) Field-Based Professor, 2) Cadre-Training, 3) Self-Instructional Materials, 4) Television and Satellite Technology and, 5) Satellite Radio.

Nelson and Trueblood (1982) presented a field-based delivery system for rural teachers and made four points: 1) A strong need exists for more staff development attention in rural schools, 2) Their teachers demonstrated a negative self image on the Kettering Climate Survey, 3) The courses they developed helped teachers achieve growth in self-concept, improved staff communication, more satisfaction in teaching, better understanding of problems of other teachers at other grade levels, and 4) Rural teachers express frustration at the lack of attention they have received from their own school district or from the state department of education. They stated "... many

rural teachers have felt the pattern of rural neglect and need to know that they will not be 'burned' again" (p. 8)

Bruce, Hubright, and Yarbrough (1976) described a co-operative plan of graduate in-service between Aloma, Georgia public schools and Georgia Southern University. They summarized their work as follows: "If successful change is to occur in rural education, the college must take a step toward student/community oriented staff development. It is a step the graduate school cannot take as long as it remains isolated from the influence of the community and student. (p. 453)

Needs Assessments of Rural Districts

The following studies provide us with only indirect information about staff development. These studies examined perceived problems of faculty, administrators, schools and districts and from these lists one might infer an agenda of staff development needs.

Barker and Muse (1983) compared the needs of K-12 rural schools with fewer than 300 students and K-12 districts with 300-900 students. Smaller schools expressed greater problems with: 1) Adequate school finances, 2) Need to improve curriculum, 3) Securing math and science teachers, and, 4) Motivation/goal setting were more important than problems with drugs, vandalism, sex, alcoholism or cheating.

As a parenthetical aside, the authors noted a tendency for researchers to take every opportunity to put in a "plug" for rural schools as evidenced in the following example. While

unrelated to the data from their study, Barker and Muse could not resist the temptation to urge the reader: "Without question, one of America's greatest resources is her rural schools and those professionals who are teaching and training our rural youth." (Barker and Muse, 1983, p. 7)

Horn (1983) studied the expressed needs of 162 Kansas teachers who were recent college graduates. He examined 45 topics of college studies and found that respondents differed in degree of emphasis rather than in requiring a completely different set of qualifications for successful teaching in rural schools. Horn does not advocate a unique program of preparation for rural teachers but does argue for sufficient flexibility to assure a higher degree of success for beginning teachers.

Helge (1985) as the result of his research, provided a list of distinctive needs of rural teachers and argued that teachers needed help to:

1. Obtain specialized teaching resources
2. Use "high-tech" innovations
3. Integrate rural-focused content into their curricula
4. Obtain additional funding and equipment
5. Involve the community
6. Relate effectively with rural parents
7. Incorporate instructional arrangements for special needs populations

One of the more balanced needs assessments of rural teachers was undertaken in British Columbia as Bandy (1980) assessed 225 rural teachers and 40 principals regarding their perceptions of

required skills and characteristics of effective teaching in small schools. Principals agreed that advantages of rural schools were to know students well, belong to a rural community, and have opportunities to individualize instruction. Teachers listed close cooperation, community involvement and agreed that communities expected to be involved with the schools. Both principals and teachers agreed that isolation and lack of privacy were disadvantages of life in the rural setting. Bandy sought both advantages and disadvantages of teaching in rural schools and this contrast pointed up one of the conceptual difficulties of attempts to pin-point differences in rural and non-rural settings. One of the distinct advantages offered by subjects in the study for teaching in a small school was the advantage of country living. One of the distinct disadvantages offered was the problem of living in a rural community. Equally unhelpful was the finding that an intimate knowledge of parents was seen as both an advantage and disadvantage.

From the limited length of this section, it is clear that the research literature on staff development in rural settings provides one with very little assistance about how to design professional growth programs for rural school personnnel. However, the research on staff development in non-rural schools is much more extensive and may provide researchers and practitioners with more helpful hints about appropriate practice in rural school districts.

SECTION II: RESEARCH FINDINGS FROM NON-RURAL SETTINGS

Since the research on staff development in rural schools is so limited, rural educators must look elsewhere for answers to questions about effective staff development practices. While the research on staff development in rural schools is meager at best, there is a considerable body of research literature in this area for public schools in general. Much of this research has been conducted in non-rural settings and has been completed since 1970.

This section discusses the effective staff development practices that have been identified in extensive reviews of research and research studies conducted in settings which are not exclusively or predominantly rural. The section begins with a review of studies conducted in the 1970's on teacher attitudes and perceptions about inservice education. These findings are followed by a discussion of effective staff development practices identified through national studies conducted in the late 1970's and the early 1980's. One study examines effective practices and includes a large sub-sample of smaller and rural schools which provides some basis for judging the degree to which the national studies of effective practices match up with effective practice for rural schools.

Once the effective practice research is presented, the remainder of this section will present research findings that (1) provide insights into recent trends related to staff development; (2) address the impact of staff development; and (3) raise

questions about the practices that have been identified as effective.

In reviewing the results of this research from non-rural settings the readers are cautioned that practices and programs that may be effective in large districts with larger schools and located in urban and suburban settings may not be appropriate for rural districts and small schools. However, given the dearth of research-based information about effective staff development in rural settings, these studies do provide the rural educator with some insights into what might work in their schools. These findings may also help researchers identify specific questions and topics for future study in the area of staff development for rural school personnel. Finally, these studies provide a basis for the design and implementation of staff development programs until a more extensive research base is developed to guide practice for rural schools.

Attitudes and Perceptions about Inservice Education

In the early and middle 1970's there was a growing concern about the effectiveness of inservice education among educational researchers. As the result of this interest in staff development, a number of studies were conducted to determine the attitudes of educators toward and about their inservice programs (Brimm and Tollett, 1974; Ainsworth, 1976; Zagarmi, Betz and Jensen, 1977; Joyce and Peck, 1977). These studies suggested that teachers, administrators and college personnel were not satisfied with their current inservice programs. The most common

defects reported were poor planning and organization, activities that were impersonal and unrelated to the day-to-day problems of teachers, lack of teacher involvement in planning and implementing the programs, inadequate needs assessment; and unclear objectives. The lack of follow-up in the classroom or in the job setting after training was a universal problem reported in these studies.

While educators were negative about current practices, nearly all teachers and administrators indicated that inservice education was crucial to improved school programs and practice. Brimm and Tollett (1974) found from their survey that teachers believed that they should select their own inservice activities to strengthen their professional competence; that teachers needed to have options in the "what, how, when, and where" of their inservice; and that teacher inservice should focus on improving classroom performance. These researchers also found that teachers supported the use of such staff development practices as needs assessment, specific objectives for inservice activities, follow-up help after inservice training, and provisions for inservice during the school day. Ainsworth (1976) found that teachers want inservice that was practical, systematically planned, and provided for a variety of activities including teachers sharing with each other.

In 1977, Zagarmi and her colleagues found that teachers preferred staff development programs which:

- had a quality of newness;

- o built on teacher interest;
- o provided choices;
- o lasted for a longer period of time;
- o provided a chance for teachers to share;
- o gave participants some control of their experiences;
- o provided for follow-up help after training.

The results of over one thousand interviews conducted in forty-four states by Joyce and Peck (1977), provided data which support the findings from these other studies. In addition, these researchers discovered that the teachers, college of education faculty, higher education administrators, teacher organization representatives and other educators they interviewed believed that:

- o teachers and school administration should plan inservice together;
- o inservice participants should determine what and how much they will be involved in inservice;
- o teachers should be required to participate in inservice.

Effective Staff Development Practice

During the late 1970's and early 1980's researchers moved away from assessing the attitudes toward staff development to the identification of specific practices that would increase the effectiveness of professional development programs for teachers and administrators. The realization that staff development was a key to change (Berman and McLaughlin, 1978) and the increased interest in effective school research (Brookover, et al, 1979; Edmunds, 1979; Perky and Smith, 1982) coupled with teachers'

perceptions that inservice education was not very effective, resulted in a series of descriptive survey studies to identify effective staff development practice. During these same years several researchers conducted extensive reviews of the research on staff development programs. This section summarizes the results of these efforts to identify effective practices.

Lawrence's (1974) review of the research on inservice education was the first major effort to identify the "characteristics" of successful staff development programs. This major and most quoted review of the research on staff development examined ninety-seven previous studies and reports of staff development to identify commonalities in successful programs. Lawrence reported the following nine generalizations about effective practice:

- Inservice programs conducted in school settings are more capable of influencing changes in behavior and attitude than are programs in other settings.
- School-based programs in which teachers participate as helpers to each other and as planners of inservice activities tend to have greater success in accomplishing their objectives than programs which are conducted by college or other outside personnel without the assistance of teachers.
- School-based inservice programs that emphasize self-instruction by teachers have a strong record of effectiveness.
- Inservice education programs that have differentiated training experiences for different teachers, i.e. are individualized, are more likely to accomplish their objectives than are programs that have common activities for all participants.
- Inservice education programs that place the teacher in active roles are more likely to accomplish their objectives

than are programs that place the teacher in a receptive role.

- Inservice education programs that emphasize demonstrations, supervised trials, and feedback are more likely to accomplish goals than are programs in which the teacher is expected to store up ideas and behavior prescriptions for a future time.

- Inservice education programs in which teachers share and provide mutual assistance to each other are more likely to accomplish their objectives than are programs in which each teacher does separate work.

- Teachers are more likely to benefit from inservice education activities that are linked to a general effort of the school than they are from single workshop programs that are not part of a general staff development plan.

- Teachers are more likely to benefit from inservice programs in which they can choose goals and activities for themselves as contrasted with programs in which the goals and activities are preplanned.

This review has come under some criticism due to methodological flaws in the studies analyzed (Cruickshank, Lorrish, and Thompson, 1979). Cruickshank and his colleagues pointed out the flaws but went on to indicate that even though there were problems, this was the one major attempt to summarize the research literature on inservice education. They viewed the generalization developed by Lawrence as reasonable hunches and hypotheses that still needed systematic examination. As the reader will see, these characteristics continued to be identified in the research reported after 1974.

For example, three studies completed between 1975 and 1980 provided support for Lawrence's nine practices. These studies included the Rand Study of practices and factors which affect educational change in schools conducted by Berman and McLaughlin

(1975, 1978), an extensive examination of staff development practices in three states and schools in selected urban and rural districts to identify effective practices completed by Yarger, Howey, and Joyce (1980), and a national survey to identify effective staff development practices conducted by the National Inservice Network (Kells, 1980). These three studies also indicated that having the principal participate in staff development with teachers was very important. Since each of these studies provided practices in addition to those noted by Lawrence that were important in effective staff development programs, they are summarized in more detail below.

While comprehensive studies of effective staff development were rare in the middle seventies, Berman and McLaughlin's (1975, 1978) report of the findings of a Rand Corporation study (Rand Study) of practices and factors affecting educational change in schools with federally funded programs disclosed some important practices that are related to the design and delivery of effective staff development. These practices included:

- teachers and administrators working together to adopt the practices or programs to be implemented in their school;
- the strategies for implementing the changes chosen by local teachers and administrators;
- inservice training that is concrete, teacher specified, and ongoing over a period of time;
- time provided for teachers to meet so they can share, solve problems, and make modifications in what they are doing;
- teachers having access to advice and guidance from peers who were implementing similar programs;

- o teachers having on-call assistance from inservice project or district staff;
- o principals participating in inservice with their faculty;
- o a positive, supportive school climate for improvement developed in the school by the principal;
- o teachers developing a sense of efficacy.

The first comprehensive examination of staff development was conducted by Yarger, Howey and Joyce (1980). These researchers surveyed the principals, teachers and university faculty in Michigan, Georgia, and California and the schools served by the Urban/Rural School Development Program to identify perceptions and recommendations about inservice teacher education. Information was requested on a variety of topics including effective staff development practice. Their study revealed that the respondents supported the use of teachers as inservice instructors, teachers selecting the goals and plans for inservice education, teachers serving as peer observers/coaches after training, teachers receiving pay as incentive for participation in inservice programs, and principals participating in inservice with teachers.

These three researchers indicated that principals, teachers and university professors agreed that inservice decisions should be made by a collaborative governance body of teachers and administrators. These respondents also believed that the costs of inservice for general personal growth and moving up the career ladder should be covered by the participants. On the other hand, the school districts should cover the cost of job-related

inservice and all inservice required of teachers and administrators.

In a similar study, the Quality Practices Task Group of the National Inservice Network (Kells, 1980) conducted a national survey to assess the perceived importance given by six different role groups to forty-six staff development practices. The sample consisted of staff development experts, state department of education personnel, federally funded teacher center directors, directors of federally funded local educational agency inservice projects, and NEA and AFT personnel involved in inservice. The items in the survey instrument were classified into six categories; the first dealt with practices related to institutionalizing an inservice system; the other five addressed essential characteristics of good staff development. The effective practices which were identified through this study included:

- Inservice providers are selected on the basis of qualifications for specific tasks;
- Inservice content and strategies are directly derived from the assessed needs of students, personnel and organizations concerned;
- The inservice design recognizes the vital importance of the participants perception of need for the training proposed;
- The inservice program design is long-range and provides for ongoing support and evaluation;
- Procedures exist to assure and to provide access to adequate numbers of personnel, adequate fiscal material, and facility resources;
- The inservice design includes plan for facilitating the implementation of quality practices throughout the system;

- o Decisions concerning the inservice education program are based upon the evaluations of program participants and others who are affected by the program;
- o The goals of individual participants for inservice should be defined and acknowledged in the overall program goal to the maximum extent possible;
- o Inservice participants should have access to follow through consultation which is separate from the personal evaluation process of the system;
- o The inservice program design defines outcome expectations including knowledge, skill, and effective goals;
- o Inservice activities are individualized insofar as possible to each participant's assessed needs and desires;
- o Inservice activities emphasize peer teacher learning;
- o The documentation of the impact of inservice activities should include the perceptions of students themselves whenever appropriate.

Dillon-Peterson and Greenawald (1980) in a fourth study, focused on determining appropriate inservice for social studies teachers. These researchers conducted a series of interviews with twenty-four national staff development experts. Their results disclosed some additional factors that contributed to effective staff development. In the judgment of the experts interviewed, the following were important when ensuring effective staff development programs:

- o a positive climate characterized by effective communication, organizational commitment, and community support.
- o a systematic and continuous planning process based on assessment of long-term and short-term needs.
- o the appropriate and permanent assignment of leadership responsibility.
- o the adequate and consistent allocation of human and financial resources.

- o formal and informal incentives for participation.
- o effective and appropriate goals, content, and strategies.
- o the provision for data collection, evaluation, revision, and follow-up.

Conceptualizing the Process of Staff Development

At the time that the results of these three studies were being published, Wood, Thompson and Russell (1981) were in the process of analyzing the research literature to develop a conceptual framework for staff development that would be based upon the available research and best practice. The five stage RPTIM model they extrapolated from the literature was presented in the 1981 Association for Supervision and Curriculum Development Yearbook. The authors discussion of their five stages (Readiness, Planning, Training, Implementation, and Maintenance) of staff development identify specific guidelines and practices for the design of effective staff development programs. Their focus was on school-based staff development.

After validating 38 practices which defined the five stage model using a national panel of staff development experts, Thompson (1982) proceeded to analyze the available research and descriptions of successful staff development programs for additional evidence to support each practice. Wood (1987) replicated the process and both researchers found extensive support for the practices. These practices included all of the practices noted in the earlier studies reported here. A summary of the practices which define each stage is presented below with references to the literature which supports the practices.

Readiness Activities: In readiness, a school faculty, with assistance from staff developers and central office administrators:

- Examine the major problems of the district and their school and spend time becoming aware of the newest and most promising ideas, practices, and trends in education; i.e., they create a data base for what is needed and possible. (Wood, Freeland, and Szabo, 1985);
- Develop a positive school climate where the faculty know each other well, have clarified their educational values, use the skills and understandings required to support open communication, have the skills for group decision making and problem solving, see the strengths in diversity among their peers, and are supportive of colleagues who are making changes in their professional practice. (Berman and McLaughlin, 1978; Schienfield, 1979; Comer, 1980);
- Collaboratively develop--with the help of parents, community leaders, and central office representatives--a written set of 3-5 year goals of school improvement that are supported by the teachers and principal (Litwin and Stringer, 1968; Lawrence, 1974; Berman and McLaughlin, 1978);
- Examine practices and programs in and outside the school to determine which are congruent with the staff's improvement goals (Caldwell and Wood, 1981);
- Select practices and programs that faculty will implement to achieve their improvement goal over the next 3-5 years (Berman and McLaughlin, 1978).

Planning Activities: Once the goals and programs/practices are selected, the school faculty and administrators share responsibility for planning. In this stage, those responsible for staff development work with the principal and teachers to:

- Identify the specific practices that teachers, principals, parents, and students will need to demonstrate when the improvement goals and programs are implemented (Charters and Jones, 1974);
- Conduct a needs assessment by gathering information from the staff to determine the extent to which the desired practices

are present in their school (Rubin, 1978; Oja, 1980; Dillon - Peterson and Hammer, 1980; Charters and Jones, 1974);

- o Determine the resources available to support staff development programs and personnel during the current budget year and over the next three to five years (Wood, Thompson, Russell, 1981);

- o Develop detailed written plans for staff development which include:

  * the knowledge, skills and attitude objective required to achieve the 3 to 5 year school improvement goals,

  * the detailed first year inservice training activities to achieve the short range goals of the plan,

  * the general training activities for each of the remaining years of the plan, and

  * the strategy to obtain and maintain support and approval of the written plan, including a budget, from the school faculty, central office, and the board of education. (Sarason, 1971; Havelock and Havelock, 1973; Sergiovanni, 1979; Rubin, 1978; Dillon-Peterson and Greenawald, 1980).

Training Activities: The training stage is where staff development plans are implemented to help the faculty learn new skills and knowledge and develop the attitudes needed to achieve their improvement goals. It is here that workshops are conducted that respond very directly to what we know about adult learning. This is the stage that represents what we have typically referred to as inservice education.

When inservice activities are designed or selected, the research suggests that they should include the following characteristics:

- o present both the theoretical and research rationale, in addition to the "nuts and bolts" of what is to be learned (Sparks, 1983);

- o use small group or team learning wherever higher order thinking and a secure learning environment are desired, (Tough, 1967; I/D/E/A, 1971; Johnson and Johnson, 1980);
- o provide some choices in the objectives and activities so that participants have some control over their own learning, (Roy, 1987; Massey, 1980, Dillon-Peterson and Hammer, 1980);
- o involve participants in directed practice where they can try out new behaviors, techniques, and ideas, and obtain helpful feedback (Lawrence, 1974; Wood and Neil, 1976; Arends, Hersh, and Turner, 1980; Joyce & Showers, 1980).
- o use peer teacher and administrators with appropriate expertise as inservice leaders, (Rubin, 1978);
- o have the principal participate in inservice with the teachers; the superintendent with their principals (Berman and McLaughlin; 1978; Hall, Rutherford and Griffin, 1982);
- o complete, share and critique "action plans" for using what is learned during inservice activities once the participant is back on the job. (Wood, McQuarrie, and Thompson, 1982).

Of course, there are other important characteristics of effective inservice "Training" activities. However, these seem to be among those most closely related to adult learning research and to what makes the difference in the more effective staff development programs.

Implementation Activities: This stage addresses a common complaint about current and past staff development programs. That is, what is learned in inservice does not find its way into the every day work activities of the participants. Here is where the teachers and principals make the transition from learning something in the controlled setting of inservice to adjusting and adapting what they have learned so that it becomes part of their daily work activities. During implementation, those faculty who

have completed inservice are provided follow-up assistance through:

- Planned visits to the work site by the staff development trainer (Joyce and Showers, 1983);
- On-call or pre-planned peer observations and meetings to provide feedback, share experience and solve problems, (Little, 1981; Joyce and Showers, 1983; Goldsbury 1980; Buckley, 1975; Lawrence, 1974);
- Access to resources required to support implementing what they have learned, e.g., materials, released time to plan or to modify plans and personnel to provide on site coaching; (Berman and McLaughlin, 1978; Little, 1981); and
- Recognition, rewards, and assistance for those implementing their new learning from administrators, especially from one's immediate supervisor (Little, 1981;

Maintenance Activities: This stage is where the professional behaviors that are installed into daily classroom and school practice are monitored to ensure they continue to be used. Here is where the teachers and administrators in a school become involved in shared responsibility for maintaining the quality of practices and programs that have been learned in inservice and installed through coaching on the job. This joint responsibility includes such activities as:

- Systematic programs of supervision by school and district administrations (Berman and McLaughlin, 1978);
- systematic use of colleague consultation (peer supervision) where teachers and administrators provide feedback to their peers (Goldsbury, 1980); and
- collection of feedback from student and parents related to practice used or not used (Wood, Thompson, and Russell, 1981).

Following the initial verification of these practices through the review of research on staff development and other

related areas such as change process, adult learning, and organizational development, a national survey was conducted to determine the degree to which practitioners and university professors with expertise in the area of staff development would support the use of these research-based practices (Wood, McQuarrie, and Thompson, 1982). The responses from over eighty percent of the membership of the Council of Professors of Instructional Supervision (COPIS) and the National Staff Development Council (NSDC) indicated strong support for all of these 38 practices. Both groups reported that nine of the practices were essential when planning and implementing staff development. Those viewed as essential included developing a positive school climate; having long range improvement goals; having faculty adopt and support the school's goals; involving faculty in selection of school improvement programs; conducting needs assessment; sharing leadership with teachers for planning inservice; having principals participate in inservice with their teachers; selecting inservice trainers based upon expertise; providing for follow-up coaching; and having the principal recognize and support those who implemented changes.

This same study also assessed the degree to which the practitioners and professors perceived these 38 practices were implemented (McQuarrie, Wood, and Thompson, 1984). The findings revealed that all but three of these practices were neglected. The most neglected stages included Readiness, Implementation, and Maintenance. The practices which were most under-implemented

included developing a positive school climate; collaborating in the development of school improvement goals; setting long range improvement goals; examining current practices in the school; conducting needs assessment; providing for followup assistance after training; having the principal recognize those implementing changes; ensuring adequate resources are available for implementation; using self-monitoring and student feedback to ensure maintenance, and sharing responsibility for maintenance. As the reader can see, there was considerable overlap between the essential and most neglected practices.

From these data, the researchers concluded that the 38 practices and the Readiness, Planning, Training, Implementation and Maintenance stages provide educators with a framework for designing effective staff development. This study also identified ten research-based assumptions that both groups of staff development experts believed ought to guide educators thinking about staff development. Over ninety percent of the respondents agreed or strongly agreed that:

- All school personnel need inservice throughout their career;
- Significant improvement in educational practice takes considerable time and long-term inservice programs (three to five years);
- Inservice education should focus on improving the quality of school programs;
- Educators are motivated to learn new things when they have some control over their learning and are free from threat;
- Educators vary widely in their competencies and readiness to learn;

- Professional growth requires commitment to new performance norms;
- School climate influences the success of professional development;
- The school is the most appropriate unit or target of change in education; and
- The principal is the key element for adoption and continued use of new practices and programs in a school.

A companion study to the Wood, McQuarrie and Thompson survey was conducted in Pennsylvania to determine practitioners perceptions of the RPTIM practices and stages. In the spring of 1981, Thompson (1982) surveyed a sample of teachers, principals and central office staff development specialists in eighty districts selected through a stratified random sampling procedure. He used the "Survey of Effective School Practices" which was also employed to collect data in the national study described above. Based on a seventy-seven percent rate of return, there was remarkable agreement in the degree to which these three groups of practitioners supported the practices, stages and assumptions and the responses of the national group of staff development experts. The essential practices identified by teachers, principals and staff development specialists were almost identical to those reported by the COPIS and NSDC expert groups. Similar results were also found for the most neglected practices and stages.

Thompson did uncover a very interesting finding in his study that was not part of the national data. He discovered that central office staff developers and principals perceived

significantly higher implementation of the practices than did teachers. In an effort to discover why this was the case, this researcher interviewed the responding teachers, principals and staff developers in a representative sample of the eighty districts. The results of these interviews disclosed that teachers were more accurate in their ratings of the degree to which the practices were actually employed. Based on his finding, he suggested that the further one was from receiving the inservice, the more likely one was to overestimate or idealize the use of effective practices.

Thompson's findings are of particular interest to rural educators because sixty of the eighty districts in his sample had fewer than 4000 students; one-half of the districts had fewer than 2600 students. Pennsylvania, according to the Pennsylvania State Department of Education, has the largest rural population in the United States. Given the rural nature of this state, the fact that the two largest urban districts in Pennsylvania, Pittsburgh and Philadelphia, were not included in the sample of schools, and the large number of small schools in the sample, one can at least begin to make some reasoned inferences about the appropriateness of the results of this study for rural schools.

In the year following the completion of the Thompson dissertation, Sparks (1983) reviewed the research on staff development related to effective teaching. She described staff development as a nested process which includes the context, process and content. In her examination of the studies related

to the process of staff development, she found support for many of the practices that Thompson had identified.

In the same November, 1983 issue of Educational Leadership that Sparks' review appeared, Cox (1983), Crandall (1983) and Loucks (1983) reported the roles of teachers, principals, outside assistants and central office staff personnel in successful implementation of change. These roles were identified as the result of a Study of Dissemination Efforts Supporting School Improvement conducted by the National Diffusion Network (NDN). This three-year study examined schools that had been successful in implementing new curriculum or innovative practice with federal funds. The results of this NDN research supported many of the staff development practices identified in the Readiness, Planning, Training, Implementation and Maintenance stages. This was true even though the NDN focus was on district-wide decisions about the changes and staff development, while Wood, McQuarrie, and Thompson were examining a school-based approach to improvement and staff development.

The Content of Staff Development

During this same time period (1979-1982), the content of staff development received some attention. For example, in 1980 Yarger, Howey and Joyce found that teachers and teacher educators believed that such topics as meeting the needs of mainstreamed children including the gifted, moral education, multi-cultural education, career education, environmental education and education of the economically disadvantaged were important

inservice content. Their data also disclosed that contemporary curricular issues and innovative new teaching strategies were not part of the inservice content for teachers.

This last finding is interesting given that three years later Sparks (1983) reported that instructional improvement was an important goal of schools in the United States and that the appropriate content for increasing the impact of teaching on student learning had been identified. Some of the content areas she identified for staff development related to instruction included classroom management, instructional techniques, teacher expectations and team learning (Brophy, 1983; Rosenshine, 1983; Slavin, 1980).

While the content of staff development programs is the guts of what we expect participants to learn, the reviewers found no systemic examination of this topic in the research literature. From the limited data we did uncover, it would appear that the primary interest of researchers has been on identifying effective staff development practices (the process), not the content of staff development.

Emerging Trends in Staff Development

Over the past ten years, particularly during the last five years, researchers have begun to conduct studies that examine specific programs and practices that have been advocated by leaders in the field of staff development and school improvement. The areas that seem to have received the greatest attention are (1) the identification of the psychological concerns and how

those affect staff development; (2) the use of follow-up coaching to promote transfer from inservice training into practice in the work setting; (3) the use of peer instructors to conduct inservice education; (4) the entry support of first year teachers; and (5) the emphasis on school-based staff development.

The psychological nature of the participants in staff development has received increased attention in the research related to staff development. The Concerns Based Adoption Model (CBAM) developed through the Research and Development Center for Teacher Education at the University of Texas at Austin, identified seven sequential stages of concern that potential users of innovations may have. These research-based stages included awareness, informational, personal, management, consequence, collaboration, refocusing (Hall, 1979).

According to the CBAM researchers, successful professional growth programs need to be congruent with the concerns of the participants. Simply stated, if the teachers are concerned about how to improve their use of a particular reinforcement strategy, the inservice growth experience ought to focus on this "management" concern, and not on the impact of the program on student achievement, a "consequence" concern (Hord, Rutherford, Hurling-Austin, Hall, 1987). This matching of concerns and staff development suggests that professional development programs must include a wide range of inservice activities, e.g., group sessions to inform and clarify the characteristics of the program (informational); discussions which address the personal concerns

expressed by individuals and small groups about the amount of work required by a change in practice (personal); skill-building workshops (management), and sharing and evaluation sessions which examine the impact of the new practices on student (consequences). This suggests a diagnostic, individualized approach to staff development.

McKibben and Joyce (1980) looked at the psychological states of twenty-one teachers and their participation in inservice education programs. They used Maslow's needs categories to identify the psychological stages of teachers. From lowest to highest level of needs, these stages included: (1) basic physical, (2) psychological safety, (3) love and belonging, (4) achievement, and (5) self-actualization. Their findings showed that:

- Teachers at the self-actualization level were more involved in staff development and more at ease with sophisticated kinds of training. These teachers also saw professional growth as a responsibility of each teacher;
- Teachers at the third stage were involved in training concepts that enabled them to do better what they were already doing; and
- Teachers at the basic physical and psychological safety needs level participated only in inservice that was required.

While these studies provide interesting and helpful information, the extent of the research in this area is still limited. Educators are just beginning to examine the issues related to the psychological state of the adult learner; we have done very little with assessing how this kind of data, when

applied in practice, impacts on the effects of inservice programs.

Coaching or follow-up assistance after inservice training is another practice that has been given considerable attention in the literature much to the credit of research by Bruce Joyce. For over two decades educators have bemoaned the lack of transfer from the inservice programs into daily practice. Joyce and Showers (1980, 1981) have noted that the study of theory, observation of demonstration, and practice with feedback will enable teachers to use practices/skills fluently and appropriately. They go on to say, however, that without follow-up coaching in the classroom, after inservice training, transfer and integration of what has been learned will not occur.

These researchers indicate that inservice instructors, peers, and supervisors can provide the coaching and technical feedback needed back on the job. The observing of a series of 20 to 30 trials in the classroom and providing feedback helps the teacher determine appropriate use of their new learned behaviors to achieve the desired consequences (Joyce and Showers, 1983; Showers, 1985).

Coaching also facilitates the teacher's ability to adapt new skills to their students. Finally, coaching provides psychological support during the time when teachers are refining their new learning. It reduces isolation and increases support (Joyce and Showers, 1982).

While the advocates have promised great results if coaching is used as part of a staff development program, there is some data which raise questions about the impact of such practice. Two recent studies reported in this review conducted by Kilgore et. al. (1986) and Wade (1985) suggest that we still need to examine coaching and its impact on transfer of learning during and after the Training Stage.

Use of Peer Trainers is a third practice which has been given attention in recent literature. This is not a new concept to staff development (Rubin, 1969). Several of the studies conducted in the 1970's have indicated that teachers ought to be the trainers for their peers (Lawrence, 1974; Yarger, Howey, and Joyce, 1980). In a study conducted by Wu (1987), teachers interviewed indicated that they preferred other teachers as consultants; they believed that peer instructors created a comfortable atmosphere that facilitated exchange of ideas; usually placed participants in a more active role; and were more practical in focusing what participants learned on immediate application in the classroom. However, it is interesting to note that Wu's review of research on the impact of peer-taught inservice provides little evidence to support the use of teachers as trainers. The problem is the lack of studies that address the effect of peer teaching in staff development.

One recent study was identified that examined the skills of seventeen successful professional assisters (former teachers) in the New York City Schools (Saxl, Lieberman, and Miles, 1987).

These peer staff developers were primarily in delivering school-based inservice activities. Through extensive interviews with their project managers, school clients, and use of observation and ranking instruments, the researchers identified eighteen core skills of effective professional peer (staff development) providers. Those skills included Interpersonal Ease, Group Functioning, Training/Doing Workshops, Educational General (Master Teacher), Educational Content, Administrative/ Organizational, Initiative-Taking, Trust/Rapport Building, Support, Confrontation, Conflict Mediation, Collaboration, Confidence-Building, Diagnosing Individuals, Diagnosing Organizations, Managing/Controlling, Resource-Bringing, and Demonstration. This study did provide information about what peer staff developers need to know and be able to do. Unfortunately, it did not provide data which validate the effectiveness of peer instructors.

Finally, there are two trends in staff development that staff developers perceive are important while we lack studies which indicate those practices are effective. For example:

School-based Staff Development: The effective schools research has led practitioners to support school-based staff development. Yet, a review of the research reveals no comprehensive studies which indicate that school-based staff development is any more effective than district-wide staff development. In fact, there is conflicting evidence in this area when we examine the research reported by Berman and McLaughlin

(1978) and the National Diffusion Network (Louchs, 1983; Crandall, 1983; Cox, 1983). Lipsitz's (1984) research suggests that school focused staff development is important to effective secondary schools, but still his work does not indicate whether this approach provides better results than district-wide staff development.

Entry Year Assistance Programs: In recent years, several states have passed legislation which requires specific staff development programs for new teachers. Yet, McDonald, (1980), and Zeichner (1980) indicate that such programs have been ineffective. In 1983, Tishner also reported that such programs had been unable to demonstrate that they were better than the sink-or-swim approach provided most new teachers. The research related to the effects of the staff development programs for new teachers is still relatively limited. However, the state of Oklahoma has systematically encouraged such studies through annual research symposia where research on entry-year assistance programs are shared (University of Oklahoma, 1987).

Research on the Impact of Staff Development

Even though there has been a growing body of research on effective staff development practice during the 1980's, there is still little evidence of its effect on teachers' learning, behaviors, and perceptions (Louchs and Melle, 1982). There is also limited data on the impact of teacher staff development on student achievement, the real long-term target of our investment

in staff development for school personnel. However, recently researchers have begun to address this question.

For example, Wade (1985) conducted a meta-analysis of ninety-one research documents on staff development. Her study indicated that the inservice teacher education programs reported in the literature are moderately effective. She also found that attempts to increase participants' learning was highly effective, while inservice to effect changes in teacher behavior and reactions to teaching were moderately effective. However, her meta analysis of studies to demonstrate results by looking at student changes pointed out that staff development was only mildly effective in this area. From Wade's research, one can conclude that inservice programs for teachers are effective at increasing teacher learning and to some extent in changing teacher behavior and attitudes/perceptions.

This meta analysis also described practices which did and did not impact on teacher learning and behaviors. For example, the ninety-one studies showed that:

- Inservice training that includes both elementary and secondary teachers is often more effective than inservice for either group separately;
- Inservice is most successful when participants are given special recognition for their involvement (eg. selected on a competition basis to represent a select group);
- Regardless of who conducts the inservice sessions, teachers are more likely to benefit when they learn on their own;
- Inservice programs that use observation, micro-teaching, audio and visual feedback, and practice are more effective; and

- Inservice programs are more effective when the leader (trainer) assumes the role of givers of information and the participants are the receivers of information.

Recent Research Raises Question About Effective Practices

The Wade study (1985) also raised some questions about effective staff development practices identified in earlier studies. Her analysis indicates that inservice is not significantly more effective when conducted at a school site; when participation is voluntary; when any special combination or sequence of instructional methods are used; or when peer instructors are employed. Probably the most surprising finding was that coaching did not have the significant impact on transfer of learning that has been attributed to it.

Guskey (1980) has also raised questions about practices related to obtaining teacher commitment and positive responses to goals for staff development and improved practice. Several researchers (Wood, Thompson, and Russell, 1981) have indicated their participant commitment needs to come prior to inservice training and implementation. However, the research Guskey has reviewed indicates that positive attitude changes and commitment result from seeing a positive impact of new practices on students in the classroom after training is completed and teachers have implemented the new procedures (Bolster, 1983; Crandall, 1983; Guskey, 1979, 1982, 1984).

In this section we have reviewed the research conducted in non-rural settings which seems to have implications for those responsible for designing inservice programs in rural school

districts. These studies, coupled with the review of the literature on rural staff development presented in the first section, provides researchers and practitioners with some insights into the kinds of professional development practices that may be effective in rural settings. The next section summarizes those practices.

SECTION III: SUMMARY OF EFFECTIVE PRACTICES FOR RURAL SCHOOLS

An analysis of the research reported in the first two sections suggests practices that should be considered when staff development is planned for rural school personnel. These practices are general descriptors of what one needs to include in the design of professional development programs. The specifics of how they are implemented are still not clearly defined by the existing research, especially the research conducted in rural schools. They do, however, provide general directions for rural staff developers and--as will be seen later--they can assist researchers identify areas of needed inquiry.

Stated briefly, those practices include:

1. Inservice training should focus on school-based improvements in professional practice;
2. The development of participant ownership through involving teachers in the selection of the goals and program changes that serve as the basis for staff development;
3. Teachers and administrators should work together to plan staff development programs;
4. Staff development planning and training should be based on a careful, systematic needs assessment;

5. Guide practice and experiential learning where participants in inservice education can try out new behaviors and techniques, exchange ideas, and obtain helpful feedback increase the chances of success in the Training Stage;

6. Use of peer instructors with expertise as an in-service leader promotes the achievement of inservice objectives;

7. Follow-up assistance as inservice participants begin to implement what they have learned during training once they have returned to their work setting seems to promote implementation and transfer of learning;

8. Participants should have some opportunity to control part of what or how they learn; and

9. Principals should participate in inservice programs with the teachers.

It is interesting to note that these practices hold a strong resemblance to those presented by Lawrence in 1974. It would also appear that the five stages of staff development described by Wood, Thompson, and Russell (1981) are an appropriate conceptual framework for rural schools. However, given the size of most rural districts, the question of whether the focus of staff development should be on the school or district-wide goals and programs for improvement is still unresolved. The remainder of the assumptions that undergird the RPTIM approach to designing professional development programs seem to fit all schools, including those in rural districts.

While the research and other literature reported earlier does identify some general practices and stages for rural staff developers, they also raise some questions about the appropriateness of certain staff development practices for rural

settings. For example, to which extent are the following practices important in designing effective rural staff development programs?

- o using peer trainers;
- o providing follow-up coaching in the work setting;
- o using a learning cycle of demonstration, modeling, practice, and feedback;
- o conducting inservice learning activities in the schools;
- o using experiential learning activities;
- o linking inservice to school improvement goals; and
- o developing a positive school climate.

Before proposing specific research needs for rural staff development that address these and other important questions, we need to pause for a second and reflect on a major issue related to rural schools. Earlier in this paper, the writers pointed out that the unique needs and nature of rural schools was not consistently supported in the literature. Thus, before discussing the research needs related to rural staff development, the conditions or contradictions about conditions in rural schools that affect how we must approach staff development in such schools will be examined.

SECTION IV: CONCEPTUAL CRITIQUE

The literature on rural staff development shares an emotional commitment to the preservation and enhancement of rural schools which strikes a responsive chord in the authors and

probably in those who read these words. Unfortunately, the writing tends to be more prescriptive than empirical and more hortatory than analytical. The prescriptions and exhortations appear to be rather consistent and pervasive and will be examined as to the degree of their substantiation in the research literature. With an eye toward sharpening our focus in future research, several contradictions which appear in the literature will be shared as problems to be clarified in future investigations.

Contradictions

One example of conceptual ambiguity might be termed "You can't have it both ways." There were statements which described rural schools simultaneously as poor, deprived, disadvantaged and also as idyllic havens of bucolic serenity. For example, Meier (1982) stated: "Small towns are regaining some of their popularity as city dwellers migrate out of highly concentrated urban areas to find more satisfaction in rural styles." (p. 7) On the same page the following quote was found: "Rural areas have been deprived of their fair share of America's wealth and public services and have been excluded from the standard of living enjoyed in metropolitan areas of the United States."

Another contradiction which appears to ripple through the literature is the simultaneous concern that rural teachers do not understand the norms and values of rural students and the indication that rural teachers are predominantly drawn from the same areas in which they are now teaching.

As yet another example of contradictory expressions, consider the following two quotations: Fratoe (1978) concluded: "Rural students not only attend schools with fewer support staff and services, less revenue and less per pupil funding, but they are also more likely to enroll in school later, progress through school more slowly, complete fewer school years, and score lower on national tests than students attending metro area schools." This bleak portrayal contrasts sharply with the data reported by Barker and Muse (1983) which found schools with enrollments under 300 pupils recorded more National Merit Exam Finalists, a higher percentage of graduating seniors (1981-87) scoring 25+ on the ACT and a slightly higher percentage of graduating seniors attending college than did their counterparts in larger schools.

Additionally, the case for a "separate" set of needs for rural teachers rests on rather shaky conceptual and empirical grounds. Sher (1977) argued that teachers are needed who are "...specially trained to be generalists." Sher also asserted the best rural teachers are the ones who are able to cope with sparsity, utilize community resources, invent curricular materials, and, above all else, are oriented toward teaching children rather than subjects. The emphasis upon general training appears to conflict sharply with Gjelton's (1978) plea for a strong tradition in the teaching of basic skills and essential facts.

While diversity of opinion exists in all areas and could be argued to contribute to the richness of the research base, there

are other possible reasons for the wide ranging views regarding staff development in rural schools. In spite of our best efforts to intellectually accept the notion of how unique and diverse rural schools are, there is still a tendency to assume that we all are talking about the same set of phenomena when, in fact, we are not. Rural schools vary so widely that any attempts to generalize run great risks. Sher (1978) provides us with a summary reminder of the amazing diversity which eludes our best efforts to reduce rural schools to a conceptually clean set of categories.

"Rural America may well represent the single most diverse and heterogeneous group of individuals and communities in our society. The island village off the coast of Maine, a coal-mining town in West Virginia, a ranching area in Wyoming, a college town in Minnesota, an impoverished community in the Mississippi Delta region, a ski-resort section of Vermont, a migrant-worker settlement in Texas, an Alaskan Native village near the Arctic circle, and a prosperous grain-farming area in Iowa have little in common except that they are all classified as rural areas of the United States." (p. 31)

In addition to the diversity which Sher identified, one need only glance at the reference to the prosperous grain-farming area in Iowa to realize how rapidly that diversity can become even more diverse. The implication for engaging in research in such a volatile and diverse field suggests that we must keep our generalizations simple and direct and that we must describe our

samples rigorously and precisely to enable our readers to examine the contexts of our research fully. While this advice is sound for all researchers it appears doubly sound for those of us attempting to make sense of education in rural America.

SECTION V: RESEARCH NEEDS

Throughout this review we have alluded to the diverse and unique qualities of rural education settings and the implications which this diversity carries for staff development needs. It is clear that research in rural staff development encounters a series of difficulties to achieve a systematic and coordinated effort. First and foremost, the great challenge presented by the aforementioned diversity will continue to haunt us. Scattered forays by doctoral students to attempt small studies with insufficient sample sizes will not suffice to provide us with the data base needed to provide an underpinning for a comprehensive staff development program.

We will enumerate what we consider to be the major flaws in the existing research base and then provide a final section which offers a few ideas about research content, research methodology, and add a few thoughts about the development of a national research agenda.

Research Critique

1. The existing studies do not provide a detailed description of settings and populations studied. As we have argued, rural schools do differ markedly from one another and the

careful description is particularly necessary to help practitioners and fellow researchers to determine the extent to which the results of the study are appropriate for their districts, their schools and their faculty.

2. With few exceptions, the descriptions of treatments tended to be vague or non-existent. The lack of details regarding inservice practices and activities prevents us from identifying the specific practices that have an impact on effectiveness of inservice programs for rural school. Perhaps more importantly, the lack of careful description prevents replication of research findings which is the essential building block of cumulative research.
3. Limited sample size and single district or school workshop descriptions continue to be the norm rather than the exception in rural staff development research. If we are to be able to generalize about appropriate practice for rural schools or different kinds of rural schools, more comprehensive samples are required.
4. Few experimental studies have been undertaken and the few which exist lack tight controls; the implications here are obvious.
5. Studies tend to focus too quickly on changes in pupil behavior before having established that changes have been effected in the behavior of teachers in the classroom. There are parallels here with the early research on micro-teaching in which researchers attempted to jump from the lab

sessions with teachers to measure changes in pupil achievement before they had demonstrated that the teachers had acquired the desired behaviors.

6. Finally, a common methodological flaw which exists in most applied research was also noted in the staff development literature, particularly in those studies conducted in rural settings. Results are often cited without attention to issues of internal validity of the research. At times, conclusions are drawn which appear to demonstrate that certain practices have failed when a more careful appraisal would indicate that the treatment had only been partially implemented. Outcomes should be measured against the degree of success in establishing the practice.

Research Content

We would suggest that a large scale needs assessment for staff development in rural schools should be undertaken with an adequate sample base and with a standardized form which provides information in ways which can be more adequately used by universities and state departments of education. The continuation of small, inconsistent and scattered forays into the needs assessment area should be discouraged in favor of carefully stratified assessments done in each state. The results could be widely shared with colleges, universities and state departments to aid them in their staffing and planning. Standardizing the form in which the needs assessments are done would enable research to be conducted regarding regional, ethnic and social

class differences which exist in the complex concept called The Rural School.

An additional area deserving attention is the careful description of the context in which needs assessment is being done. Given our myriad backgrounds it is essential to provide the planners with much more information than is customary about the settings in which the needs assessments are being undertaken. This same plea is offered in connection with all research done in small, rural settings in that generalizability of results will continue to be a problem in educational engineering and particularly in our diverse rural schools. We can increase the usability of our research if we carefully document the origins of our research findings.

A third area which appears important is an examination and comparison of delivery systems which are most useful to rural settings. Obviously, the technology which is now available needs to be exploited for rural staff development purposes but other systems and ideas need to be examined as well. Given the frequent cries of isolation which are heard argues for attempting ways to bring the teacher out of the rural setting as well as bringing skills, knowledge and information to the teacher.

A final suggestion about research content is a suggestion that effective practices should be tested individually for their applicability in rural settings. The few studies which have attempted test applicability have tried to do too much. Given the small sample sizes it is unreasonable to test 8 to 10

effective practices in a single study. We would all gain collectively if we applied our "small is beautiful" maxim to our own research and engaged in small, well crafted studies which attempted to do a few things well rather than try to make up for a century of lost time in one study.

In addition to the above general suggestions, we would offer more specific suggestions for studies which appear to be needed to enhance our understanding of rural staff development.

1. A survey of current practices employed in rural schools is needed which might replicate the studies done by Wood, McQuarrie and Thompson (1981) to determine the extent of use of the 38 RPTIM practices in rural schools.
2. Studies are needed to determine the effect of the nine practices which appear to be the most appropriate (See Section IV) for rural school staff development. Particularly, the effect of these practices should be examined as to their impact on:
    a. positive attitudes toward new programs, practices, and/or participating in inservice programs.
    b. commitment, ownership, and participation in staff development activities.
    c. change in participant behavior.
    d. changes in on-the-job practices.
3. Studies to determine whether school-based or district-wide staff development is more appropriate for rural schools--for

what kinds of inservice, for what kind of goals, and for what size rural districts.

4. Studies to determine the appropriateness of the concerns stages identified in the Concerns Based Adoption Model for rural teachers.
5. Studies defining the current status of staff development for first year entry teachers and administrators.

Methodology

There are two methodological suggestions which appear pertinent to the rural school staff development setting. First, we would urge an increase in well designed and in-depth qualitative studies which increase our understanding of how and why certain staff development practices function as they do. With a concern for rich detail and providing what Clifford Geertz (1973) calls "thick description" we may be able to better understand the complex and subtle aspects of our rural setting. For example, one of the often stated beliefs is that small rural schools provide a total experience for children which goes beyond viewing the child as a composite of academic and social skills. Because the small school is staffed by someone from the community who understands the family background of the child and who also knows the values and culture of the community, it is frequently argued that this teacher is better equipped to individually respond to that child as a total and complete person. Try fitting that problem statement into a 2X2X3 factorial design!

Secondly, we would suggest that more staff development researchers utilize single subject or N of 1 experimental designs to take advantage of a methodology which is more suitable for the rural setting. As Borg and Gall (1983) stated: "It has been suggested that exploration of new educational techniques should begin with single-subject designs. This strategy enables the researcher to make intensive observations over a reasonably long period of time, to 'play with' treatment variations, and to formulate hypotheses. Insights derived from single-subject data then can be tested for generalizability in a multisubject design." (p. 719)

A National Research Agenda

There appears to be a need to establish a National Research Agenda for Rural Education. The creation of a Research Panel could be the first step toward the development of a matrix of needed research topics. By designing a series of studies which could be executed at the national level, sufficient cooperation could be achieved to have research done of sufficient scope to be defensible. By mapping out the major research domains, a national register of critical research studies needed could be maintained and doctoral students seeking either topics or access to data sources could be aided in their research efforts. We can no longer afford to allow the research agenda to drift without a strong central organization providing structure and guidance.

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